



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,986	07/20/2001	Roger K. Stone	0585MH-41322	3507

7590 04/18/2006

Melvin A. Hunn
Hill & Hunn LLP
201 Main Street, Suite 1440
Fort Worth, TX 76102

EXAMINER

SINGH, SUNIL

ART UNIT	PAPER NUMBER
----------	--------------

3673

DATE MAILED: 04/18/2006

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/910,986

Applicant(s)

STONE, ROGER K.

Examiner

Sunil Singh

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2,4,6,7-8,10,12,13-14,16-17,19-20,21,22,24,25-26,28,29-30,32-34

rejected under 35 U.S.C. 102(b) as being anticipated by Humason (US 2397419).

Humason discloses a well treatment tool, comprising a generally cylindrical body (see

Figs. 1,5, (14,15)) for installing concentrically in line with a sucker rod string (10)

disposed generally concentrically within a production tube string (7) and for distributing

well treatment fluid (see page 3 left column line 63+) from the sucker rod string and into

the production tube string, with at least the portion of the sucker rod string disposed

above said cylindrical body being hollow; said body including an upper end having an

axial fluid entrance passage therein for accepting treatment fluid from the sucker rod

portion disposed thereabove, and an opposite solid lower end (member 15 is solid, **note**

solid does not preclude having an opening); said body further including at least one

treatment fluid distribution passage (16) extending outwardly from said body; valve

means (14,15) disposed within said body; said valve means including an inlet end

communicating with said fluid entrance passage and opposite outlet end communicating

with said fluid distribution passage; and attachment means disposed upon said upper

end and said lower end of said body (see Figs. 1,5) for attaching said body to the

Art Unit: 3673

sucker rod string (10). Internal threaded connection (see threaded connections of members 13 and 15). Initial treatment and storage system (71). Continuously supplying well treatment fluid (see page 1 left column line 54 thru page 1 right column line 1).

3. Claims 1,2,4,7,8,10,21-22,24,25-26,28,35-37, 39-40,42 are rejected under 35 U.S.C. 102(b) as being anticipated by Hurlstone et al. (US 2929451).

Hurlstone et al. discloses a well treatment tool, comprising a generally cylindrical body (see Figs. 1,3) for installing concentrically in line with a sucker rod string (9) disposed generally concentrically within a production tube string (7) and for distributing well treatment fluid (see col. 1 line 30+, col. 4 lines 5-55, col. 5 lines 5-20) from the sucker rod string and into the production tube string, with at least the portion of the sucker rod string disposed above said cylindrical body being hollow; said body including an upper end having an axial fluid entrance passage therein for accepting treatment fluid from the sucker rod portion disposed thereabove, and an opposite solid lower end (lower portion of member 17 is solid, **note solid does not preclude having an opening, or (24)**); said body further including at least one treatment fluid distribution passage (29) extending outwardly from said body; valve means (17) disposed within said body; said valve means including an inlet end communicating with said fluid entrance passage and opposite outlet end communicating with said fluid distribution passage; and attachment means disposed upon said upper end and said lower end of said body (see Fig. 3) for attaching said body to the sucker rod string (9). Internal threaded connection (see threaded connection at (25)). External threaded connection (see threaded connection at

Art Unit: 3673

(16)). Intermittently supplying well treatment fluid (see col. 5). A tank (see Fig. 1) for containing a supply of well treatment fluid, at least one treatment fluid line (43) defining a treatment delivery fluid pathway which is coupled to at least said tank, a treatment fluid pump (32) coupled to said at least one treatment fluid line and said tank.

4. Claims 21-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Morris et al. (US 4694908).

Morris discloses a well treatment tool comprising a generally cylindrical body (18) for installing generally concentrically within a production tube string (12) and coupled to a treatment fluid string (16) and for distributing well treatment fluid (see col. 3 line 15+) from the fluid string and into the production tube string, with at least the portion of the treatment fluid string disposed above said cylindrical body being hollow; said body including an upper end having an axial fluid entrance passage (this is considered where member 22 is in Fig. 2) therein for accepting treatment fluid from the treatment fluid string disposed thereabove; said body further including at least one treatment fluid distribution passage (26) extending outwardly from said body, valve means (28) disposed within said body: said valve means including an inlet end (this is considered as member 24) communicating with said fluid entrance passage and opposite outlet end (this is considered as the area just under member 32) communicating with said fluid distribution passage; and attachment means (16) for attaching said body to the treatment fluid string.

Art Unit: 3673

5. Claims 1,2,3,4,7,8,9,10,21-22,23,24,25-26,27,28,35-37, 39-40,42 are rejected under 35 U.S.C. 102(b) as being anticipated by Humason (US 2134045).

Humason discloses a well treatment tool, comprising a generally cylindrical body (see Fig. 1) for installing concentrically in line with a sucker rod string (25,33) disposed generally concentrically within a production tube string (1) and for distributing well treatment fluid from the sucker rod string and into the production tube string, with at least the portion of the sucker rod string disposed above said cylindrical body being hollow; said body including an upper end having an axial fluid entrance passage therein for accepting treatment fluid from the sucker rod portion disposed thereabove, and an opposite solid lower end (lower portion close to where member 40 is pointing, **note solid does not preclude having an opening**); said body further including at least one treatment fluid distribution passage (40) extending outwardly from said body; valve means (27) disposed within said body; said valve means including an inlet end communicating with said fluid entrance passage and opposite outlet end communicating with said fluid distribution passage; and attachment means disposed upon said upper end and said lower end of said body (see Fig. 1) for attaching said body to the sucker rod string. Internal threaded connection (see threaded connection at (lower portion close to where member 40 is pointing)). External threaded connection (see threaded connection at (upper portion close to where member 36 is pointing)). Intermittently supplying well treatment fluid (see page 3 left column).

Art Unit: 3673

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3, 5,9,11,15,18,23,27,31 rejected under 35 U.S.C. 103(a) as being unpatentable over Humason (US 2397419).

With regards to claims 3,9,15,23 ,27 and 31 it would have been considered obvious to modify Humason by using a ball check valve instead of the one depicted in Figs. 1, 5 since it is a mere design choice to substitute equivalent parts for performing equivalent functions.

With regards to claims 5,11 and 18 Humason cylindrical body upper and lower ends are not externally threaded. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the upper and lower ends externally threaded, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

Art Unit: 3673

8. Claims 35-40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humason '419 in view of Hurlstone et al. (US 2929451)

Humason discloses the invention substantially as claimed. However, Humason (Fig. 1, (12)) is silent about including a tank for containing a supply of well treatment fluid, at least one treatment fluid line defining a treatment delivery fluid pathway which is coupled to at least said tank, a treatment fluid pump coupled to said at least one treatment fluid line and said tank. Hurlstone et al. teach a tank (see Fig. 1) for containing a supply of well treatment fluid, at least one treatment fluid line (43) defining a treatment delivery fluid pathway which is coupled to at least said tank, a treatment fluid pump (32) coupled to said at least one treatment fluid line and said tank. It would have been considered obvious to one of ordinary skill in the art to modify Humason to include the tank, fluid line and pump arrangement as taught by Hurlstone et al. since such an arrangement is conventional in supplying treatment fluid.

9. Claims 3,5,6,9,11,12,23,27 rejected under 35 U.S.C. 103(a) as being unpatentable over Hurlstone et al..

With regards to claims 3,9, 23,27 it would have been considered obvious to modify Hurlstone by using a ball check valve instead of the one depicted in Fig. 3, since it is a mere design choice to substitute equivalent parts for performing equivalent functions.

Art Unit: 3673

With regards to claims 5,11, Hurlstone et al. cylindrical body lower end is not externally threaded. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the lower end externally threaded, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

With regards to claims 6,12, Hurlstone et al. cylindrical body upper end is not internally threaded. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the upper end internally threaded, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

10. Claims 13-20, 29-34,38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurlstone et al. in view of Humason '419.

Hurlstone et al. discloses the invention substantially as claimed. However, Hurlstone is silent about including an initial treatment and storage system.

Humason '419 teaches an initial treatment and storage system (71). It would have been considered obvious to one of ordinary skill in the art to modify Hurlstone et al. to include an initial treatment and storage system as taught by Humason since such an arrangement is conventional.

Art Unit: 3673

With regards to claims 15 and 31 it would have been considered obvious to modify Hurlstone by using a ball check valve instead of the one depicted in Fig. 3, since it is a mere design choice to substitute equivalent parts for performing equivalent functions.

With regards to claim 18, Hurlstone et al. cylindrical body lower end is not externally threaded. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the lower end externally threaded, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

With regards to claims 19, Hurlstone et al. cylindrical body upper end is not internally threaded. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the upper end internally threaded, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

11. Claims 35-37 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris et al. in view of Hurlstone et al. (US 2929451)

Morris et al. discloses the invention substantially as claimed. However, Morris et al. is silent about including a tank for containing a supply of well treatment fluid, at least one treatment fluid line defining a treatment delivery fluid pathway which is coupled to at least said tank, a treatment fluid pump coupled to said at least one treatment fluid line and said tank. Hurlstone et al. teach a tank (see Fig. 1) for

Art Unit: 3673

containing a supply of well treatment fluid, at least one treatment fluid line (43) defining a treatment delivery fluid pathway which is coupled to at least said tank, a treatment fluid pump (32) coupled to said at least one treatment fluid line and said tank. It would have been considered obvious to one of ordinary skill in the art to modify Morris et al. to include the tank, fluid line and pump arrangement as taught by Hurlstone et al. since such an arrangement is conventional in supplying treatment fluid.

12. Claims 5,611,12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humason '045

With regards to claims 5,11, Humason cylindrical body lower end is not externally threaded. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the lower end externally threaded, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

With regards to claims 6,12, Humason cylindrical body upper end is not internally threaded. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the upper end internally threaded, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

Art Unit: 3673

13. Claims 13-20, 29-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humason '045 in view of Humason '419.

Humason '045 discloses the invention substantially as claimed. However,

Humason '045 is silent about including an initial treatment and storage system.

Humason '419 teaches an initial treatment and storage system (71). It would have been considered obvious to one of ordinary skill in the art to modify Humason '045 to include an initial treatment and storage system as taught by Humason '419 since such an arrangement is conventional.

With regards to claim 18, Humason '045 cylindrical body lower end is not externally threaded. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the lower end externally threaded, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

With regards to claim 19, Humason '045 cylindrical body upper end is not internally threaded. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the upper end internally threaded, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

Art Unit: 3673

14. Claims 35-37,39,40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humason '045 in view of Hurlstone et al. (US 2929451) Humason '045 discloses the invention substantially as claimed. However, Humason is silent about including a tank for containing a supply of well treatment fluid, at least one treatment fluid line defining a treatment delivery fluid pathway which is coupled to at least said tank, a treatment fluid pump coupled to said at least one treatment fluid line and said tank. Hurlstone et al. teach a tank (see Fig. 1) for containing a supply of well treatment fluid, at least one treatment fluid line (43) defining a treatment delivery fluid pathway which is coupled to at least said tank, a treatment fluid pump (32) coupled to said at least one treatment fluid line and said tank. It would have been considered obvious to one of ordinary skill in the art to modify Humason to include the tank, fluid line and pump arrangement as taught by Hurlstone et al. since such an arrangement is conventional in supplying treatment fluid.

Response to Arguments

15. Applicant's arguments filed 7/29/04 have been fully considered but they are not persuasive. With regards to Humason '045 applicant argues that Humason '045 does not teach a treatment fluid. The examiner disagrees. In apparatus claims, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the

Art Unit: 3673

claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Applicant's argument that Humason '045 does not permit flow of fluid or gas into the surrounding wellbore is far more limiting than the claimed subject matter. Furthermore, the "gas lift" can be construed as "treatment fluid" since it mixes with the oil to lift said oil and therefore performs a treatment thus reducing the viscosity. Applicant argues there is no axial fluid passage. The examiner is confused because clearly in Figure 1 above member (37) is a axial fluid passage. Applicant argues that there is no opposite solid lower end". Once again in Figure 1 the element just below member 40 is considered the solid lower end. It should be noted that solid does not preclude having an opening. Applicant argues that the diameter of the body is not smaller than the production tube. Clearly in Figure 1 the diameter of the body (27) is smaller than the production tube (1). Applicant argues that Humason does not teach radial disposed passages. The examiner is confused because (40) constitute radial disposed passages. With regards to arguments directed to whether internally or externally threaded connecting elements are known and interchangeable, the examiner would like to point out that it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

With regards to Morris et al., applicant states that Morris et al. sprays treatment fluid in a single operation as opposed to a continuous treatment which is taught by his invention. The examiner would like to point out that in apparatus claims, a recitation of the intended use of the claimed invention must result in a structural difference between

Art Unit: 3673

the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Applicant further argues that Morris is useful for only high volume treatments, not low treatments like his. Such argument is far more limiting than the claimed subject matter. There is no language in the claims requiring "low treatments". Applicant argues that Morris relies on a gas chamber and piston to bias the valve in contrast to his which requires only a mechanical bias. It should be noted that there is no limitation in the claims precluding having a gas chamber and piston means as the biasing means. Applicant argues that the fluid treatment device of Morris et al. is temporary. In as much applicant's Figure 4 is continuous and permanent then so is Morris et al. Applicant's argument that his tool is permanently installed is far more limiting than the claimed subject matter.

Conclusion

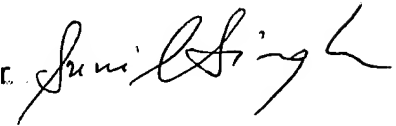
16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunil Singh whose telephone number is (571) 272-7051. The examiner can normally be reached on Monday through Friday 10:30 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Engle Patricia can be reached on (571) 272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3673

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sunil Singh
Primary Examiner.
Art Unit 3673



SS



4/13/06